



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/475,958	12/30/1999	Rex M. Bitner	16026-9038	7117
7590	08/11/2004			EXAMINER SISSON, BRADLEY L
KAREN B KING MICHAEL BEST & FRIEDRICH LLP ONE SOUTH PINCKNEY STREET SUITE 700 P O BOX 1806 MADISON, WI 537011806			ART UNIT 1634	PAPER NUMBER
DATE MAILED: 08/11/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/475,958	BITNER ET AL.
Examiner	Art Unit	
Bradley L. Sisson	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 16 April 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 7,15 and 19 is/are allowed.

6) Claim(s) 1-6,8-14,16-18,20-25 and 27-29 is/are rejected.

7) Claim(s) 20 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 17 MAY 2004.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

Claim Objections

1. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim. In the instant case, claim 20 is separated from claim 16 by independent claim 19.
2. A claim that depends from a dependent claim should not be separated by any claim that does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Specification

3. The specification is objected to as documents have been improperly incorporated by reference. In particular, the specification states at page 11 that PCT/US98/01149 and WO 98/31840 are incorporated by reference; and at page 12 that US Patent 6,310,199 is referenced for disclosing preferred embodiment, but in neither case the specification fails to identify where the relevant information is to be found. Such omnibus language fails to specify what specific information applicant seeks to incorporate by reference and similarly fails to teach with detailed particularity just where that specific information is to be found in each of the cited documents.

As set forth in *Advanced Display Systems Inc. v. Kent State University* (Fed. Cir. 2000) 54

USPQ2d at 1679:

Incorporation by reference provides a method for integrating material from various documents into a host document--a patent or printed publication in an anticipation

determination--by citing such material in a manner that makes it clear that the material is effectively part of the host document as if it were explicitly contained therein. *See General Elec. Co. v. Brenner*, 407 F.2d 1258, 1261-62, 159 USQP 335, 337 (D.C. Cir. 1968); *In re Lund*, 376 F.2d 982, 989, 153 USPQ 625, 631 (CCPA 1967). **To incorporate material by reference, the host document must identify with detailed particularity what specific material it incorporates and clearly indicate where that material is found in the various documents.** *See In re Seversky*, 474 F.2d 671, 674, 177 USPQ 144, 146 (CCPA 1973) (providing that incorporation by reference requires a statement "clearly identifying the subject matter which is incorporated and where it is to be found"); *In re Saunders*, 444 F.2d 599, 602-02, 170 USPQ 213, 216-17 (CPA 1971) (reasoning that a rejection or anticipation is appropriate only if one reference "expressly incorporates a particular part" of another reference); *National Latex Prods. Co. v. Sun Rubber Co.*, 274 F.2d 224, 230, 123 USPQ 279, 283 (6th Cir. 1959) (requiring a specific reference to material in an earlier application in order to have that material considered a part of a later application); *cf. Lund*, 376 F.2d at 989, 13 USPQ at 631 (holding that a **one sentence reference to an abandoned application is not sufficient to incorporate from the abandoned application into a new application**). (Emphasis added.)

Accordingly, the cited documents are not considered to have been properly incorporated by reference and as such, have not been considered with any effect towards their fulfilling, either in part or in whole, the enablement, written description, or best mode requirements of 35 USC 112, first paragraph.

Response to argument

4. At page 9 of the response received 16 April 2004, hereinafter the response, applicant asserts that "it is well within the ability of one skilled in the art to identify that material within the '199 Patent that relates to pH dependent ion exchange particles. Specifically, one skilled in the art would appreciate that Applicants were intending to refer to Examples 3, 5, or 7 of the '199 Patent."

5. The above argument has been fully considered and has not been found persuasive towards the withdrawal of the objection to the specification. While argument directed to the level of skill in the art can be relevant to issues of enablement as found under 35 USC 112, first

paragraph, the objection to the specification, the objection to the specification is not an enablement rejection and arguments directed to the level of skill or lack of skill is not dispositive to the issue at hand.

6. Agreement is reached in that incorporating a document by reference is a convenient means to bring otherwise lengthy disclosures into the instant application. However, in order to do such, applicant needs to do two things: First, identify the material they seek to incorporate by reference, and secondly, to teach with detailed particularity where that material is to be found in the cited document(s). Indeed, applicant at page 4, lines 17-19, specifically identifies information and its location in a document (that was not incorporated by reference). However, in the case of the above-cited PCT and WO documents, the specification provides no direction as to where the relevant information is to be found. While applicant now provides direction as to where the relevant portions of the US patent are to be found, such post filling disclosures cannot be relied upon to overcome deficiencies of the original disclosure. Accordingly, the noted PCT and WO documents, as well as the issued US Patent, are not properly incorporated by reference and as such, the objection to the specification is maintained.

Request for information

7. An issue of public use or on sale activity has been raised in this application. In order for the examiner to properly consider patentability of the claimed invention under 35 U.S.C. 102(b), additional information regarding this issue is required as follows: Information pertaining to the manufacture and selling of pH-dependent ion exchange particles as well as silica magnetic particles encompassed by the method of claim 1 and claim 21, as well as information relating to

the manufacture and selling of MagneSilTM; silica beads used and sold in WizardTM *Plus* Plasmid Purification Systems; MagneSphere[®] Technology Magnetic Separation Stand, the Poly A Tract[®] Series 9600TM Multi-Magnet; Magnetight Separation Stand; and Dynal Magnetic Particle Concentrator.

Applicant is reminded that failure to fully reply to this requirement for information will result in a holding of abandonment.

8. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

9. The information is required to identify products and services embodying the disclosed subject matter of claims 1-25 and 27-29 and identify the properties of similar products and services found in the prior art.

10. In response to this requirement, please provide copies of each publication which any of the applicants authored or co-authored and which describe the disclosed subject matter of claims 1-25 and 27-29.

11. In response to this requirement, please provide the names of any products or services that have incorporated the claimed subject matter.

12. This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. Claims 1-25 and 27-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Attention is directed to the decision in *University of Rochester v. G.D. Searle & Co.* 68 USPQ2D 1424 (Fed. Cir. 2004) at 1428:

To satisfy the written-description requirement, the specification must describe every element of the claimed invention in sufficient detail so that one of ordinary skill in the art would recognize that the inventor possessed the claimed invention at the time of filing. *Vas-Cath*, 935 F.3d at 1563; see also *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 [41 USPQ2d 1961] (Fed. Cir. 1997) (patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that “the inventor invented the claimed invention”); *In re Gosteli*, 872 F.2d 1008, 1012 [10 USPQ2d 1614] (Fed. Cir. 1989) (“the description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed”). Thus, an applicant complies with the written-description requirement “by describing the invention, with all its claimed limitations, not that which makes it obvious,” and by using “such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention.” *Lockwood*, 107 F.3d at 1572.

15. For convenience, claims 1, 8, 16, and 21 are reproduced below.

Art Unit: 1634

1. (Currently amended) A method of using magnetic particles to concentrate or harvest cells, comprising the steps of:

- (a) combining cells with magnetic particles having a particle size of about 1 to 15 μm , under conditions wherein the cells selectively adsorb directly to the particles thereby forming a complex, wherein said magnetic particles are selected from the group consisting of (1) pH dependent ion exchange particles and (2) silica magnetic particles consisting essentially of a magnetic core coated with a siliceous oxide having a hydrous siliceous oxide adsorptive surface; and
- (b) isolating the complex from the solution by application of magnetic force.

8. (Currently amended) A method of clearing a solution of disrupted biological material, according to steps comprising:

- (a) providing a solution comprising a disrupted biological material;
- (b) combining the solution with magnetic particles having a particle size of about 1 to 15 μm under conditions wherein the disrupted biological material other than target nucleic acids selected from the group consisting of selectively adsorbs directly to the particles, thereby forming a complex, wherein said magnetic particles are selected from the group consisting of (1) pH dependent ion exchange particles and (2) silica magnetic particles consisting essentially of a magnetic core coated with a siliceous oxide having a hydrous siliceous oxide adsorptive surface; and
- (c) separating the complex from the solution by application of magnetic force.

16. (Currently amended) A method of clearing a solution of disrupted biological material other than target nucleic acids, according to the steps comprising:

- (a) combining a solution with cells contained therein with first magnetic particles having a particle size of about 1 to 15 μm , under conditions wherein the cells selectively adsorb directly to the first magnetic particles;
- (b) isolating the complex from the solution by application of magnetic force;
- (c) disrupting the cells to provide a solution comprising a disrupted biological material;
- (d) combining the solution of step (c) with second magnetic particles having a particle size of about 1 to 15 μm under conditions wherein the disrupted biological material other than target nucleic acids selectively adsorbs directly to the second magnetic particles, thereby forming a complex; and
- (e) separating the complex of step (d) from the solution of step (d) by application of magnetic force.

21. (Currently amended) A method of isolating a target nucleic acid from a disrupted biological material, comprising the target nucleic acid, a first non-target material, and a second non-target material, comprising the steps of:

- (a) combining a solution of the disrupted biological material with first magnetic particles having a particle size of about 1 to 15 μm under conditions wherein the first

non-target material selectively adsorbs directly to the particles, thereby forming a first complex, wherein said magnetic particles are selected from the group consisting of (1) pH dependent ion exchange particles and (2) silica magnetic particles consisting essentially of a magnetic core coated with a siliceous oxide having a hydrous siliceous oxide adsorptive surface;

(b) separating the first complex from the solution of disrupted biological material by application of magnetic force, forming a cleared solution comprising the target nucleic acid and the second non-target material, wherein the target nucleic acid is selected from the group consisting of plasmid DNA, total RNA, mRNA, and genomic DNA;

(c) combining the cleared solution with second magnetic particles having a particle size of about 1 to 15 μ m under conditions wherein the target nucleic acid adsorbs to the second magnetic particles, forming a second complex;

(d) isolating the second complex from the cleared solution;

(e) washing the second complex by combining the second complex with a wash solution and separating the second complex from the wash solution by magnetic force; and

(f) combining the washed second complex with an elution solution, under conditions wherein the target material is desorbed from the second magnetic particles.

16. A review of the specification identified the following examples.

- Example 1, page 16, Gel Electrophoresis
- Example 2, pages 16-17, Absorption Spectrophotometry
- Example 3, pages 17-19, Synthesis of Glycidyl-Histidine and Glycidyl-Alanine Silica Magnetic Ion Exchange Particles
- Example 4, pages 19-20, Preparation of a Lysate of Plasmid DNA

- Example 5, pages 20-21, Lysate Clearance by Centrifugation or Silica Magnetic Particles, Followed by Plasmid DNA Isolation using Glycidyl-Histidine or Glycidyl-Alanine Silica Magnetic Particles
- Example 6, pages 21-23, Lysate Clearance with Silica Magnetic Particles or Varying Amounts of Mag-IE-Glycidyl-Histidine Particles
- Example 7, pages 24-26, Lysate Clearance by Centrifugation vs. Using Silica magnetic Particles, followed by Isolation of Plasmid DNA from Cleared Lysate using Silica Magnetic Particles
- Example 8, pages 26-28, Concentration of cells, Lysate Clearing, and DNA Isolation Using Mag-IE-Glycidyl-Histidine Particles
- Example 9, pages 28-30, Clearing Mouse Tissue Homogenates using Mag-IE-Glycidyl-Histidine Particles and isolating DNA and RNA therefrom using Mag-IE-Glycidyl-Histidine Particles
- Example 10, pages 30-36, Concentration of White blood Cells, Lysate Clearing, and DNA Isolation from whole Blood using Mag-IE-Glycidyl-Histidine Particles, Nonporous MAGNESIL-IE-GLY-Histidine Particles, and MAGNESILTM Particles using Human Whole Blood

17. A review of the specification finds that but two types of particles have been developed and found to exhibit the requisite properties, and those particles are Glycidyl-Histidine and Glycidyl-Alanine silica magnetic particles. A review of the disclosure fails to find where any other magnetic particle, be it pH-dependent ion exchange magnetic particle or silica magnetic

particle had been developed and found to exhibit the requisite properties, much less disclose using alternative embodiments in the claimed method.

18. Acknowledgement is made where at (renumbered) page 16, bridging to page 17, applicant asserts “[o]ther magnetic silica particles and their use in the present method to concentrate cells, to clear solutions of disrupted biological material, and to isolate target nucleic acids from disrupted biological material will be apparent to those skilled in the art of chromatographic separations and molecular biology.” In view of such statements, and the absence of other embodiments having been adequately described, it appears that applicant is attempting to satisfy the written description requirement of 35 USC 112, first paragraph, through obviousness. Obviousness, however, cannot be relied upon for satisfaction of the written description requirement. In support of this position, attention is directed to the decision in *University of California v. Eli Lilly and Co.* (Fed. Cir. 1997) 43 USPQ2d at 1405, citing *Lockwood v. American Airlines Inc.* (Fed. Cir. 1997) 41 USPQ2d at 1966:

Recently, we held that a description which renders obvious a claimed invention is not sufficient to satisfy the written description requirement of that invention.

19. In accordance with claim 21, one is to “isolate a target nucleic acid from disrupted biological material.” Said phrase has been interpreted as encompassing the isolation of not only a specific class of nucleic acids (e.g., chromosomal DNA, mRNA, etc.), but also nucleic acids that have a specific nucleotide sequence. A review of the disclosure fails to locate where any sequence-specific isolation has occurred, or that such a level of discrimination is even possible.

20. In view of the above remarks, and in the absence of convincing evidence to the contrary, the specification does not reasonably suggest that applicant was in possession of the claimed

invention at the time of filing. Accordingly, claims 1-25 and 27-29 are rejected under 35

U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

21. Claims 1-25 and 27-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. As set forth in *Enzo Biochem Inc., v. Calgene, Inc.* (CAFC, 1999) 52 USPQ2d at 1135, bridging to 1136:

To be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation.' " *Genentech, Inc. v. Novo Nordisk, A/S*, 108 F.3d 1361, 1365, 42 USPQ2d 1001, 1004 (Fed. Cir. 1997) (quoting *In re Wright*, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)). Whether claims are sufficiently enabled by a disclosure in a specification is determined as of the date that the patent application was first filed, see *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986).... We have held that a patent specification complies with the statute even if a "reasonable" amount of routine experimentation is required in order to practice a claimed invention, but that such experimentation must not be "undue." See, e.g., *Wands*, 858 F.2d at 736-37, 8 USPQ2d at 1404 ("Enablement is not precluded by the necessity for some experimentation . . . However, experimentation needed to practice the invention must not be undue experimentation. The key word is 'undue,' not 'experimentation.' ") (footnotes, citations, and internal quotation marks omitted). In *In re Wands*, we set forth a number of factors which a court may consider in determining whether a disclosure would require undue experimentation. These factors were set forth as follows: (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims. *Id.* at 737, 8 USPQ2d at 1404. We have also noted that all of the factors need not be reviewed when determining whether a disclosure is enabling. See *Amgen, Inc. v. Chugai Pharm. Co., Ltd.*, 927 F.2d 1200, 1213, 18 USPQ2d 1016, 1027 (Fed. Cir. 1991) (noting that the *Wands* factors "are illustrative, not mandatory. What is relevant depends on the facts.").

22. As presently worded, the method of claims 1-25 and 27-29 fairly encompass performing all steps of the recited methods under the same conditions, including those methods steps that

result in the isolation of different compounds (cells v. disrupted cells v. each class of nucleic acid). A review of the disclosure finds that specific conditions are required to achieve each of the various forms of binding. Further, the specification only provides two versions of essentially the same particle that can be used in the claimed method. Such limited disclosure fails to fully enable the entire scope of the claims.

23. It is well settled that one cannot enable that which they do not yet possess. As noted above, the specification does not reasonably suggest that applicant had possession of the claimed invention at the time of filing. Accordingly, the specification does not enable the claimed methods.

24. In view of the breadth of the claims, the narrow exemplification and the limited written description found in the original disclosure, claims 1-6, 8-14, 16-18, 20-25, and 27-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

25. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

26. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

27. Claim 1 is indefinite as to whether the pH dependent ion exchange particles, or whether just the silica magnetic particles are coated with a siliceous oxide having a hydrous siliceous

adsorptive surface. Claims 2-6, which depend from claim 1, fail to overcome this issue and are similarly rejected.

28. Claims 1, 8, and 21 are indefinite with respect to what constitutes the metes and bounds of "consisting essentially of." Upon review of the disclosure it appears that the surface of the magnetic particles are coated with either glycidyl-histidine or glycidyl-alanine. The presence of either glycidyl-histidine or glycidyl-alanine is considered to constitute a significant modification of the hydrous siliceous adsorptive surface, and a review of the disclosure fails to locate any alternative embodiments. In view of such teachings, and the absence of alternative embodiments, the metes and bounds of surface modification is less than clear. Claims 2-6, 9-14, 22-25, and 27-29, which depend from said claims 1, 8, and 21, fail to overcome this issue and are similarly rejected.

Double Patenting

29. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

30. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

31. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

32. Claims 15-25 and 27-29 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-248, 50, and 51 of copending Application No. 09/711,782. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 15-20 of the instant application and claims 1-23 of the '782 application are drawn to a method of clearing a solution of disrupted biological material; and that claims 21-25 and 27-29 of the instant application, and claims 24-48, 50, and 51 of the '782 application are drawn to a method of isolating a target nucleic acid from a nucleic acid adsorption solution.

33. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

34. This Office action has an attached requirement for information under 37 CFR 1.105. A complete reply to this Office action must include a complete reply to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley L. Sisson whose telephone number is (571) 272-0751.

The examiner can normally be reached on 6:30 a.m. to 5 p.m., Monday through Thursday.

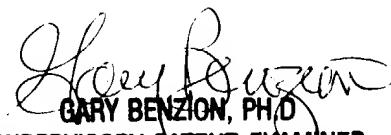
36. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (571) 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

37. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bradley L. Sisson
Primary Examiner
Art Unit 1634

BLS
03 August 2004



GARY BENZION, PH.D.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600
8/4/04 re 10/5 request.